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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,189	08/27/2001	Nicolas Vazquez	5150-52800	3520
35690	7590	06/27/2005	EXAMINER	
MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C. P.O. BOX 398 AUSTIN, TX 78767-0398			ZHEN, WEI Y	
			ART UNIT	PAPER NUMBER

2191

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/940,189

Applicant(s)

VAZQUEZ ET AL.

Examiner

Wei Y. Zhen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/15/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. This office action is in response to amendment filed on 4/11/2005.
2. Claims 1-37 are pending.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-13, 15-16, 18-24 and 26-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Meyer US Patent No. 5,940,196.

As Per Claim 1, Meyer discloses “displaying a graphical user interface (E.g. see Col. 8:51) comprising a plurality of possible steps that are useable in specifying at least a portion of a process” (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text);

receiving first user input selecting a plurality of steps specifying a first portion of the process (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text. Said toolbox allows for a plurality of image processing steps to be selected by the user using said GUI. In addition, machine vision applications or programs are easily built interactively using graphical flow control environment such as Graftet and Activex (E.g. see Col. 2:58 to 5: 17));

creating a process specification in response to the first user input, wherein the process specification comprises the plurality of steps specifying the first portion of the process (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text);

receiving second user input selecting a plurality of nodes and interconnecting at least two of the plurality of nodes, thereby specifying a plurality of interconnected nodes (E.g. see Col. 9:34 to Col. 10:50 and Fig. 4-6);

creating a block diagram in response to the second user input, wherein the block diagram specifies a second portion of the process, wherein the second portion of the process is distinct from the first portion of the process, and wherein the block diagram is inherently distinct from the process specification; wherein the block diagram comprises a plurality of interconnected nodes which visually indicate operation of the second portion of the process; wherein the process specification and the block diagram collectively specify the computer-implemented process (see below)

Meyer teaches a method and system for developing application software for use in a machine vision system (FIG. 2, No. 20), wherein a graphical user interface (GUI) in the form of a toolbox is used to capture and process images (E.g. see Fig. 3-6, 8 and Col. 7:31 to 8:65). Said toolbox allows for a plurality of image processing steps to be selected by the user using said GUI. In addition machine vision applications or programs are easily built interactively using graphical flow control environment such as Grafcet and Activex (E.g. see Col. 2:58 to Col. 5:17). Said machine vision applications are built using drag and drop environment or via a menu system (E.g. see Col. 9:34 to Col. 10:50 and Fig. 4-6). Further, the method comprises the step of storing three sets of custom control programs, wherein the first set represents components of a user interface, the second set represents the machine vision algorithms for the machine vision system, and the third set represents hardware operating parameters. Based on the commands received from the user, the first set of custom control program is selected, which corresponds to

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the desired component of the user interface with desired hardware operating parameters. Then said first set of custom control program is linked to the second set of custom control program to form the application software. Thus, the toolbox is the GUI that allows the user to create process specification (first portion) in response to user input, which comprises a plurality of image processing steps. Interactively building machine vision application specifically is creating block diagram, which specifically is the second portion. The two portions in combination makeup the machine vision process. In the first phase of the system, the user teaches the system to perform particular application (e.g. part identification, measurement, etc.). Then in the second phase, applications are executed automatically (E.g. see Col. 1 1:5 to 13:50). Thus, Meyer teaches a machine vision system, wherein the GUI is utilized to obtain and process image data, and said processed data is used to perform the functions of the machine vision system. Said functions comprise parts inspection and feature correlation which requires making decisions or judgments based on the processed data (E.g. calculate a "score" that show a level of similarity between the device and the image) (E.g. see Col. 11:50 to Col. 13 and Fig. 8).

As per claim 2, the rejection of claim 1 is incorporated and further Meyer teaches: wherein the block diagram graphically specifies a procedure that uses values determined by the first portion of the process to produce one or more results.(E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text).

As per claim 3, the rejection of claim 1 is incorporated and further Meyer teaches: 'wherein the block diagram graphically specifies a decision operation based on execution results determined by steps in the process specification. (E.g. see Col. 7:3 1 to 8:65 and See Fig. 3-6,8 and associated text).

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As Per claim 4, the rejection of claim 1 is incorporated and further Meyer teaches:

including one or more steps in the process specification operable to perform a plurality of operations based on a result computed by the block diagram." (Again, see noted above of claim 1).

As Per claim 5, the rejection of claim 1 is incorporated and further Meyer teaches:

including a step in the process specification that references the block diagram." (E.g. see Fig. 8 and associated text and noted in Claim 1).

As Per claim 6, the rejection of claim 1 is incorporated and further Meyer teaches

"executing the process, wherein said executing comprises executing the process specification and executing the block diagram." (Again, see noted above of Claim 5).

As per Claims 7-12, the rejection of claim 1 are incorporated and are rejected under the same reason set forth in connection of the rejection of claim 1.

As per Claim 13, the rejection of claim 12 is incorporated and further Meyer teaches:

wherein the object is an image." (E.g. see Col. 1:39).

As per Claim 15, the rejection of claim 1 is incorporated and further Meyer teaches:

wherein the process specification is stored as a computer program." (E.g. see Col. 11: 17- 18).

As per Claim 16, the rejection of claim 1 is incorporated and is rejected under the same

reason set forth in connection of the rejection of claim 11.

As per Claim 18, the rejection of claim 1 is incorporated and further Meyer teaches:

wherein process is executable to inspect a device" (E.g. see Col. 2: 13-18);

wherein the block diagram is executable to determine an inspection classification for the device, depending on execution results of the process specification." (E.g. see Col. 1:43-53).

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As per Claim 19, the rejection of claim 1 is incorporated and further Meyer teaches: wherein the process is a machine vision process executable to visually inspect a device (E.g. see Abstract and Fig. 2 and associated text);

wherein the block diagram is executable to determine an inspection classification for the device, depending on execution results of the process specification." (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text).

As per Claim 20, the rejection of claim 1 is incorporated and further Meyer teaches: "wherein the process is executable to perform one...of the following types of applications: a machine vision application" (E.g. see Abstract and associated text).

Claim 21 has been amended in similar manner as claim 1, see the rejection to claim 1 above in combination with previous rejection of claim 21.

See previous rejections to claims 22-24.

Claim 26 has been amended in similar manner as claim 1, see the rejection to claim 1 above in combination with previous rejection of claim 26.

Claims 27-35 has been amended in similar manner as claim 1, see the rejection to claim 1 above in combination with previous rejections of claims 27-35.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14, 17, 25, 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer US Patent No. 5,940,196 in view of Microsoft Press Computer Dictionary (MPCD).

As per claim 14, Meyer doesn't explicitly disclose script.

However, MPCD discloses script was well known in the art (p. 422).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of MPCD into the system of Meyer, so that the process specification comprises a script. The modification would have been obvious because one of ordinary skill in the art would have been motivated to allow the user to graphically connect inspection steps to each other.

As per Claim 17, the rejection of claim 1 is incorporated and further the combination of Meyer and MPCD teaches: wherein said creating the process specification in response to user input comprises creating program portion coded in a text-based programming language in response to user input" (See as noted above of Claim 14 a script is a text-based language).

As per Claim 25, Meyer teaches:

receiving user input indicating operations to be performed on an object' (E.g. see Col. 5 : 5- 13);
storing a plurality of steps in response to the user input, wherein each step is operable to perform an operation" (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text. Said toolbox allows for a plurality of image processing steps to be selected by the user using said GUI. In addition, machine vision applications or programs are easily built interactively using graphical flow control environment such as Grafcet and Acitvex (E.g. see Col. 2:58 to 5:17)) .

creating a block diagram in response to user input, wherein the block diagram specifies a second portion of the process; wherein the process specification and the block diagram collectively specify the computer-implemented process" (see below)

Meyer teaches a method and system for developing application software for use in a machine vision system (FIG. 2, No. 20), wherein a graphical user interface (GUI) in the form of a toolbox is used to capture and process images (E.g. see Fig. 3-6, 8 and Col. 7:31 to 8:65). Said toolbox allows for a plurality of image processing steps to be selected by the user using said GUI. In addition machine vision applications or programs are easily built interactively using graphical flow control environment such as Grafcet and Acitvex (E.g. see Col. 2:58 to Col. 5:17). Said machine vision applications are built using drag and drop environment or via a menu system (E.g. see Col. 9:34 to Col. 10:50 and Fig. 4-6). Further, the method comprises the step of storing three sets of custom control program, wherein the first set represents components of a user interface, the second set represents the machine vision algorithms for the machine vision system, and the third set represents hardware operating parameters. Based on the commands received from the user, the first set of custom control program is selected, which corresponds to the desired component of the user interface with desired hardware operating parameters. Then, said first set of custom control program is linked to the second set of custom control program to form the application software. Thus, the toolbox is the GUI that allows the user to create process specification (first portion) in response to user input, which comprises a plurality of image processing steps. Interactively building machine vision application specifically is creating block diagram which specifically is the second portion. The two portions in combination makeup the machine vision process. In the first phase of the system the user teaches the system to perform

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particular application (e.g. part identification, measurement, etc.). Then in the second phase, applications are executed automatically (E.g. see Col. 11:5 to 13:50). Thus, Meyer teaches a machine vision system, wherein the GUI is utilized to obtain and process image data, and said processed data is used to perform the functions of the machine vision system. Said functions comprise parts inspection and feature correlation which requires making decisions or judgments based on the processed data (E.g. calculate a "score" that show a level of similarity between the device and the image) (E.g. see Col. 1 1:50 to Col. 13 and Fig. 8).

Meyer doesn't explicitly disclose script.

However, MPCD discloses script was well known in the art (p. 422).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of MPCD into the system of Meyer, so that the process specification comprises a script. The modification would have been obvious because one of ordinary skill in the art would have been motivated to allow the user to graphically connect inspection steps to each other.

As per claim 36, the rejection of claim 25 is incorporated and further it is rejected for the reason set forth in the rejection of claim 26.

As per claim 37, the rejection of claim 36 is incorporated and further it is rejected for the reason set forth in the rejection of claim 27.

Double Patenting

5. The previous rejection for double patenting still applies, see the previous office actions for rejections to the claims.

Response to Arguments

6. Applicant's arguments filed on 4/11/2005 have been fully considered but they are not persuasive.

In the remark, applicant argues:

1) Meyer teaches building a single graphical control flow structure rather than two distinct portions, a process specification and a block diagram, which operate in conjunction to specify a process.

2) Meyer does not disclose "...wherein the block diagram graphically specifies a decision operation based on execution results determined by steps in the process specifications.

3) Favreau does not disclose a script.

Examiner's response:

1) Meyer discloses two distinct portions, a process specification and a block diagram, which operate in conjunction to specify a process (E.g. see Col. 9:34 to Col. 10:50 and Fig. 4-6, Meyer storing three sets of custom control programs, wherein the first set represents components of a user interface, the second set represents the machine vision algorithms for the machine vision system, and the third set represents hardware operating parameters. Based on the commands received from the user, the first set of custom control program is selected, which corresponds to the desired component of the user interface with desired hardware operating parameters. Then said **first set** of custom control program is linked to the **second set** of custom control program to form the application software. Thus, the toolbox is the GUI that allows the user to create process specification (**first portion**) in response to user input, which comprises a

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plurality of image processing steps. Interactively building machine vision application specifically is creating block diagram, which specifically is the **second portion**. The two portions in combination makeup the machine vision process).

2) It was noted in the previous office action that Myer discloses wherein the block diagram graphically specifies a decision operation based on execution results determined by steps in the process specifications (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text). Applicant has failed to point out the errors in the rejection. Therefore, the rejection is maintained.

3) Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wei Y. Zhen whose telephone number is (571) 272-3708. The examiner can normally be reached on Monday-Friday, 8 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wei Zhen
6/23/2005



WEI Y. ZHEN
PRIMARY EXAMINER